ment system that addresses these and other aspects. In one embodiment, the system includes a portable, stand-alone blood glucose meter and a portable docking device that includes an internal receptacle sized and structured to receive and house the blood glucose meter. The docking device is generally operable to interface with the blood glucose meter and perform various diabetes management functions. For example, the docking device may be operable to analyze blood glucose measurement data stored on the blood glucose meter, configure the blood glucose meter, and/or interact with an insulin delivery device, just to name a few possibilities. Still, further aspects and features of the present application are described with respect to the illustrated embodiments as follows.

[0065] Referring to FIG. **1**, there is illustrated a modular diabetes management system **10** that includes a portable, stand-alone blood glucose (bG) meter **20** and a portable docking device **50**. The bG meter **20** is positionable in engagement with docking device **50** to provide a communication interface therebetween. Further details of docking device **50** and the interface between it and meter **20** will be provided below.

[0066] Referring now generally to FIGS. **1-3**, bG meter **20** is operable for testing and measuring glucose levels in the blood of a user from a sample applied to a test element using electrochemical or optical techniques. An example of a test element configured for use with electrochemical techniques is the ACCU-CHEK® Aviva test strip, which is described more fully in U.S. Patent Application Publication No. 2005/0016844, the disclosure of which is hereby incorporated herein by reference in its entirety; and an example of a test element configured for use with optical techniques is the ACCU-CHEK® Compact test strip, which is described more fully in U.S. Pat. No. 7,008,799, the disclosure of which is hereby incorporated herein by reference in its entirety. Each of these exemplary test elements are distributed in the United States by Roche Diagnostics Corporation of Indianapolis, Ind.

[0067] The bG meter **20** includes a housing **22** with a capable display **24**, user entry means **26**, and a test element port **28**. It should be appreciated that housing **22** can be sufficiently compact so that it can be conveniently hand held and carried by the user. Electronic circuitry is contained within housing **22** to provide an electrochemical or optical measurement of a glucose level from a sample of blood on a test element inserted into test element port **28**. For example, as illustrated in FIG. **2**, an electrochemical test element in the form of test strip **34** has been inserted into test element port **28** and bG meter **20** has performed a glucose measurement of blood taken from a finger of hand H of the user. The results of the bG measurement performed by meter **20** are provided on display **24** in FIG. **2**.

[0068] Further details and examples of conventional bG meters and related electrical and optical components and their respective measurement techniques are described in U.S. Pat. Nos. 5,352,351; 4,999,482; 5,438,271; 6,645,368; 5,997,817; 6,662,439; RE 36,268; 5,463,467; 5,424,035; 6,055,060; 6,906,802; and 5,889,585; the disclosures of which are hereby incorporated herein by reference in their entireties.

[0069] Housing **22** of bG meter **20** also includes a connection element **30** positioned opposite of test element port **28**. Connection element **30** is generally structured to engage with a corresponding connection element of docking device **50**, further details of which are provided below. In the illustrated embodiment of bG meter **20**, connection element **30** is in the form of a mini-USB port **32** structured to receive a mini-USB plug, such as plug **36** illustrated in FIG. **3**, although alternative configurations of connection element **30** are contemplated. It should be appreciated that plug **36** may be representative of the connection element of docking device **50** or some other communication link, such as a cord, which is utilized to interface bG meter **20** with a secondary device such as a PC. Additionally, in one or more non-illustrated embodiments, it is contemplated that connection element **30** may be in the form of a plug structured to engage with a corresponding port on docking device **50** or some other secondary device. The bG meter **20** may also include one or more other compartments or features for storage of lancets, test elements such as test strips **34**, cleaning swabs or other items (not shown) which may be useful with bG meter **20**.

[0070] In FIG. **4** there is shown one embodiment of a schematic of an exemplary bG meter **20** that is suitable for use with system **10**. The bG meter **20** includes a controller **38**, memory **40** associated with controller **38**, a programmable processor **42** associated with controller **38** and connected with memory **40**, and a real-time clock **44** associated with controller **38** and connected with processor **42**. Display **24** is connected with processor **42** with, for example, a display driver, and operable to provide a user readable display of output from processor **42**. User entry means **26** is connected with processor **42** and accessible by the user to provide input to processor **42**. Processor **42** is connected with test element port **28** and operable to process and record data in memory **40** relating to a blood glucose measurement taken in test element port **28** and produce a representation of the current bG measurement and associated data on display **24**. Processor **42** is further programmable to receive input commands from user entry means **26** and provide an output that responds to the input commands. Processor **42** is also connected with connection element **30** and is operable to control the transfer of information to and from bG meter **20**.

[0071] Controller **38** may be comprised of one or more components configured as a single unit or of multi-component form. Controller **38** may be programmable, a state logic machine or other type of dedicated hardware, or a hybrid combination of programmable and dedicated hardware. One or more components of controller **38** may be of the electronic variety defining digital circuitry, analog circuitry, or both. As an addition or alternative to electronic circuitry, controller **38** may include one or more mechanical or optical control elements.

[0072] In one embodiment including electronic circuitry, controller **38** includes an integrated processor **42** operatively coupled to one or more solid-state memory devices defining, at least in part, memory **40**. For this embodiment, memory **40** contains operating logic to be executed by a processor **42** that is a microprocessor and is arranged for reading and writing of data in memory **40** in accordance with one or more routines of a program executed by microprocessor **42**.

[0073] Memory **40** may include one or more types of solid-state electronic memory and additionally or alternatively may include the magnetic or optical variety. For example, memory **40** may include solid-state electronic Random Access Memory (RAM), Sequentially Accessible Memory (SAM) (such as the First-In, First-Out (FIFO) variety or the Last-In First-Out (LIFO) variety), Programmable Read. Only Memory (PROM), Electrically Programmable Read Only Memory (EPROM), or Electrically Erasable Programmable Read Only Memory (EEPROM); or a combination of any of